

WHAT IS CLAIMED IS:

1. A synthetic resin container closure for closing a container having a mouth-neck portion with an internal diameter D4, said container closure comprising:
 - a circular top panel wall;
 - a cylindrical skirt wall extending downwardly from the peripheral edge of the top panel wall and formed from a synthetic resin as a single unit with the top panel wall;
 - an outer cylindrical sealing protrusion extending downwardly from the inner surface of the top panel wall;
 - an inner cylindrical sealing protrusion extending downwardly from the inner surface of the top panel wall and having a maximum external diameter D3; and
 - an annular sealing ridge located between the outer cylindrical sealing protrusion and the inner cylindrical sealing protrusion and projecting downwardly from the inner surface of the top panel wall, wherein:
$$0.25 \text{ mm} \leq (D3 - D4) \leq 1.50 \text{ mm},$$
so that when the container closure is mounted on the mouth-neck portion of the container, the inner peripheral surface of the outer cylindrical sealing protrusion is in close contact with the outer peripheral surface of the mouth-neck portion, the outer peripheral surface of the inner cylindrical sealing protrusion is in close contact with the inner peripheral surface of the mouth-neck portion, and the annular sealing ridge is in close contact with the top surface of the mouth-neck portion; and

the inner peripheral surface of the outer cylindrical sealing protrusion extends downwardly with an outward inclination at an angle $\theta 6$ with respect to the center axis of the container closure and then extends downwardly and radially outwardly in an arc form.

2. The container closure of claim 1, wherein the outer peripheral surface of the outer cylindrical sealing protrusion extends substantially parallel with the center axis.

3. The container closure of claim 1, wherein the outer peripheral surface of the inner cylindrical sealing protrusion extends downwardly with an outward inclination at an angle $\theta 1$ with respect to the center axis of the container closure and then extends downwardly with an inward inclination at an angle $\theta 2$ with respect to the center axis.

4. The container closure of claim 3, wherein the inclination angle $\theta 1$ is 5° to 25° and the inclination angle $\theta 2$ is 5° to 30° .

5. The container closure of claim 3, wherein the inner peripheral surface of the inner cylindrical sealing protrusion extends downwardly with an outward inclination at an angle $\theta 3$ with respect to the center axis, and then extends substantially parallel with the center axis.

6. The container closure of claim 3, wherein the outer peripheral surface of the inner cylindrical sealing protrusion has the maximum external diameter D3 at a position spaced from the inner surface of the top panel wall by a length L1 of 2.50 mm to 3.50 mm.

7. The container closure of claim 5, wherein the inclination angle $\theta 3$ of the inner peripheral surface of the inner cylindrical sealing protrusion is larger than the inclination angle $\theta 1$ of the outer peripheral surface of the inner cylindrical sealing protrusion at a position above the position having the maximum external diameter D3.

8. The container closure of claim 1, wherein $10^\circ \leq \theta 6 \leq 25^\circ$.

9. The container closure of claim 1, wherein the inner surface of the top panel wall is devoid of ribs.

10. A synthetic resin container closure for closing a container having a mouth-neck portion with an external diameter D2 and an internal diameter D4, said container closure comprising:

a circular top panel wall;

a cylindrical skirt wall extending downwardly from the peripheral edge of the top panel wall and formed from a synthetic resin as a single unit with

the top panel wall;

an outer cylindrical sealing protrusion extending downwardly from the inner surface of the top panel wall;

an inner cylindrical sealing protrusion extending downwardly from the inner surface of the top panel wall and having a maximum external diameter D3; and

an annular sealing ridge located between the outer cylindrical sealing protrusion and the inner cylindrical sealing protrusion and projecting downwardly from the inner surface of the top panel wall, wherein:

$0.05 \text{ mm} \leq (D2 - D1) \leq 0.60 \text{ mm}$ and $0.25 \text{ mm} \leq (D3 - D4) \leq 1.50 \text{ mm}$, so that when the container closure is mounted on the mouth-neck portion of the container, the inner peripheral surface of the outer cylindrical sealing protrusion is in close contact with the outer peripheral surface of the mouth-neck portion, the outer peripheral surface of the inner cylindrical sealing protrusion is in close contact with the inner peripheral surface of the mouth-neck portion, and the annular sealing ridge is in close contact with the top surface of the mouth-neck portion; and

the inner peripheral surface of the outer cylindrical sealing protrusion extends downwardly with an outward inclination at an angle $\theta \geq 6^\circ$ with respect to the center axis of the container closure and then extends downwardly and radially outwardly in an arc form.

11. The container closure of claim 10, wherein the inner surface of the top panel wall is devoid of ribs.